

Name: _____

Date: _____

Quiz name: **atomic**

1. A chemical element is uniquely identified by its _____.

- ☐ (A) electron number
- ☐ (B) proton number
- ☐ (C) neutron number
- ☐ (D) mass number

2. If there are 11 protons and 10 neutrons in the nucleus of an atom, what is the atomic number?

- ☐ (A) 10
- ☐ (B) 11
- ☐ (C) 21
- ☐ (D) 12

3. A sodium atom has a mass number of 23. Its atomic number is 11. How many electrons does it have (assume it is a neutral atom)?

- ☐ (A) 11
- ☐ (B) 34
- ☐ (C) 12
- ☐ (D) 23

4. Phosphorous has an atomic number of 15. What will be the distribution of its electrons?

- ☐ (A) 5 in the first electron shell, 5 in the second, and 5 in the third
- ☐ (B) 2 in the first electron shell, 8 in the second, and 5 in the third
- ☐ (C) 8 in the first electron shell and 7 in the second
- ☐ (D) 2 in the first electron shell and 13 in the second

5. Isotopes of the same element must have the same number of

- ☐ (A) neutron
- ☐ (B) electron
- ☐ (C) proton
- ☐ (D) mass number

6. Isotopes of the same element must have different numbers of

- ☐ (A) neutron
- ☐ (B) electron
- ☐ (C) proton
- ☐ (D) none of the above

7. A neutral atom of $^{37}_{17}\text{Cl}$ has

- ☐ (A) 37 protons, 37 neutrons, and 37 electrons
- ☐ (B) 17 protons, 37 neutrons, and 17 electrons

- ☐ C 17 protons, 20 neutrons, and 37 electrons
 - ☐ D 17 protons, 20 neutrons, and 17 protons
 - ☐ E None of these are correct
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8. A new element, Tyserium (Ty), has recently been discovered and consists of two isotopes. One isotope has a mass of 331 g/mol and is 35.0 % abundant. The other isotope is 337 g/mole and is 65.0 % abundant. What is the mass of Ty as it appears on the periodic table?

- ☐ A 332
- ☐ B 333
- ☐ C 334
- ☐ D 335
- ☐ E 336